

**From:** [Sivak, Michael](#)  
**To:** [Hagerman, Paul](#); [Mitchell, Tanya](#); [Amy Darpinian](#)  
**Cc:** [Sy, William](#)  
**Subject:** RE: Rolling Knolls - minimum sampling volumes  
**Date:** Thursday, December 11, 2014 3:19:08 PM

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Paul,

I believe ARCADIS indicated that the passive diffusion bags collect about 200 – 300 mls of samples – Ricky from CDM was on the call and can verify this. Would that mean that the detection limits that are necessary for the project cannot be met with this sampling protocol? If we need 1L for metals and 500 mls for cyanide, but we only have 200 – 300 mls from the sampler, what does this mean?

Michael Sivak

212.637.4310

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**From:** Hagerman, Paul [<mailto:HagermanPR@cdmsmith.com>]

**Sent:** Thursday, December 11, 2014 1:22 PM

**To:** Mitchell, Tanya; Amy Darpinian

**Cc:** Sivak, Michael; Sy, William

**Subject:** RE: Rolling Knolls - minimum sampling volumes

*Below is the minimum volume that we can supply to the CLP laboratory.*

*VOC – 1 HCL preserved vial – 40 ml*

*Metals and Mercury – 1 HNO3 preserved poly – 500 ml*

*Dissolved Metals and Mercury – 1 HNO3 preserved poly – 500 ml*

*SVOC – 1 amber unpreserved – 1 L*

*Pesticides - 1 amber unpreserved – 1 L*

*PCBs - 1 amber unpreserved – 1 L*

*Cyanide - 1 NaOH preserved poly – 500 ml*

*If there are no issues with the analyses at these minimum levels of volumes provided, then we will achieve standard reporting limits.*

Paul Hagerman, P.E.

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**From:** Mitchell, Tanya [<mailto:Mitchell.Tanya@epa.gov>]

**Sent:** Tuesday, December 09, 2014 3:21 PM

**To:** Amy Darpinian; Hagerman, Paul

**Cc:** Sivak, Michael; Sy, William

**Subject:** Rolling Knolls

Hi Amy,

Please have CDM contact the CLP representative to determine the minimum volume that can be provided for VOCs, and TAL metals plus cyanide for the pore water samples. It appears that spilt samples were provided but, CDM is concerned that there is not going to be enough

volume. Please review the QAPP volumes and the response from the CLP representative to determine if there will be enough volume for the VOCs and metals.

If you have any questions please contact Michael.

Thanks,

Tanya